LEE 001

000293



# ecology and environment, inc.

4319 COVINGTON HIGHWAY, DECATUR, GEORGIA 30035

International Specialists in the Environmental Sciences

#### MEMORANDUM

DATE:

February 24, 1982

T0:

Shane Hitchcock, EPA

FROM:

Dan Harman, E&E

SUBJECT: Geophysical Surveys for Lees Lane Landfill

The Lees Lane Landfill RAP, which was prepared in December 1981, included recommendations for further field investigations. These recommendations were to locate the buried wastes, to determine the extent of ground-water contamination, and to make a complete analysis of the gases vented to the air. The first two tasks can be accomplished by using magnetometer and resistivity methods. The third item can be accomplished by sampling.

As per your request the following outline is a schedule to complete the surveys:

### Phase I - Field Work

- Conduct magnetometer survey on a 50-foot grid pattern.
- Conduct resistivity soundings to a depth of 150 feet at selected locations.

The Phase I field work would require three people one week to complete.

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### Phase I - Office Work

- A. Prepare a site base map.
- B. Prepare a magnetic contour map.
- C. Prepare hydrogeologic cross-sections.
- D. Prepare a letter report.

The phase I office work would require two persons three weeks to complete.

### Phase II - Field Work

- A. Conduct magnetometer survey on a 10-foot grid pattern to detail location and depth of buried metal wastes.
- B. Conduct resistivity profiles at selected depths to determine horizontal and vertical extent of ground-water contamination.

The phase II field work would require three people one week to complete.

#### Phase II - Office Work

- A. Prepare a detailed magnetic contour map and depth profiles.
- B. Prepare an apparent-resistivity map for each subsurface zone profiled.
- C. Prepare a letter report with recommendations for monitor well locations.

The phase II office work would require two people two weeks to complete.

In order to reserve a magnetometer a two week notice is recommended. FIT looks forward to commencing the above work at your earliest convenience.

H. Dan Harman, Jr., J.G.

Hydrogeologist

James L. Templeton, Jr.

FIT Leader

cc: R. D. Stonebraker TDD F4-8109-08 file

HDH/JLT/1sr